



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/367,797	01/19/2000	ANDREW JOHNSON	A-68362/DJB	4776

23735 7590 05/12/2004

DIGIMARC CORPORATION  
19801 SW 72ND AVENUE  
SUITE 250  
TUALATIN, OR 97062

EXAMINER

KLIMACH, PAULA W

ART UNIT	PAPER NUMBER
----------	--------------

2135

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/367,797

Applicant(s)

JOHNSON ET AL.

Examiner

Paula W Klimach

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-40, 42-46, 50 and 51 is/are allowed.
- 6) ☒ Claim(s) 41, 44, 47 and 49 is/are rejected.
- 7) ☒ Claim(s) 42, 45 and 48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 16<sup>th</sup> April 2004.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

Art Unit: 2135

## **DETAILED ACTION**

### ***Response to Amendment***

This office action is in response to amendment filed on 2/10/04 (Paper No. 12). Original application contained Claims 1-51. Applicant added claims 41-51. The amendment filed on 2/10/04 have been entered and made of record. Therefore, presently pending claims are 1-51.

### ***Response to Arguments***

Applicant's arguments filed 2/10/04 have been fully considered but they are not persuasive because of following reasons stated below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 41, 44, and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Tewfik.

*In reference to claim 41*, regarding a method of steganographically encoding content data to encode a digital watermark therein, the content data representing audio or visual information and comprising plural samples, each having a value (column 5 lines 23-26), the digital watermark representing a plural-bit payload (the signature, S<sub>j</sub> is inherently a plural bit payload since it is digital data processed by computer Fig. 2), the

Art Unit: 2135

method including segmenting the content data into portions (column 7 lines 4-13) and processing same to encode the digital watermark therein (column 7 lines 36-38, step 44 of Fig. 4), an improvement comprising subtracting from each of the samples a non-zero value (step 40 of Fig. 4). The addition of the watermark is equivalent to a subtraction in the case that the watermark that is added is a negative watermark.

*In reference to claim 49*, regarding a method of encoding image or video content with a digital watermark comprising: providing data corresponding to a logo graphic (column 3 lines 51-53). Providing content data, the content data represents image or video or video information and comprising plural samples, each having a value (column 5 lines 23-26). Segmenting the content data into blocks (column 7 lines 4-13). Transforming the segmented content data into another domain (column 7 lines 10-11). Processing the transformed content data in accordance with the data corresponding to the logo graphic (column 7 lines 36-38). Inverse transform the processed content data back into an original domain (column 7 lines 38-40). See Fig. 4.

*In reference to claim 44*, regarding a method of steganographically encoding content data to encode a digital watermark therein, the content data representing audio or visual information and comprising plural samples, each having a value (column 5 lines 23-26), the digital watermark representing a plural-bit payload (the signature,  $S_j$  is inherently a plural bit payload since it is digital data processed by computer Fig. 2), the method including segmenting the content data into portions (column 7 lines 4-13) and processing same to encode the digital watermark therein (column 7 lines 36-38, step 44 of Fig. 4), an improvement wherein the samples in each portion have an order, and the method includes scrambling said order as part of said processing (part 38 fig. 4). The

Art Unit: 2135

frame inherently undergoes some scrambling of the order during the segmentation process.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 47 rejected under 35 U.S.C. 103(a) as being unpatentable over Tewfik in view of the article by Cox et al.

Claim 47 is rejected as the rejection for claim 41.

Tewfik does not expressly disclose the method for decoding.

Cox discloses the method for extracting the watermark as being the reverse of the method of inserting the watermark (page 193).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to reverse the steps of the watermark insertion as taught by Ingemar to extract the watermark in the system by Tewfik. One of ordinary skill in the art would have been motivated to do this because the watermarking process is reversible since it involves calculating the inverse transform.

***Allowable Subject Matter***

Claims 1, 15, 27, 37, and 50 allowed.

Claims 1, 15, 27 and 37 are allowable because Tewfik discloses a system in which the digital image is segmented. However the combination of Tewfik and Ingemar do not

Art Unit: 2135

disclose applying a pseudo random reversible function to a block of the digital media data to obtain a modified data block.

Claim 50 is allowable because the claim refers to assessing the coefficients then changing the coefficient value or leaving the coefficient value unchanged.

Claim 42, 45 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paula W Klimach whose telephone number is (703) 305-8421. The examiner can normally be reached on Mon to Thr 9:30 a.m to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (703) 305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

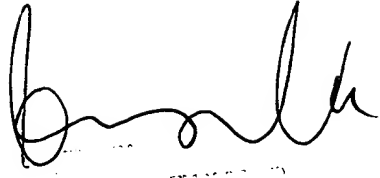
Application/Control Number: 09/367,797

Page 6

Art Unit: 2135

PWK

Monday, April 19, 2004



Handwritten signature, likely "B. A. L. H.", written in cursive script.